

REPORT
OF
THE COMMITTEE OF INVESTIGATION
APPOINTED MARCH 22, 1897,
AT
THE ANNUAL TOWN MEETING,
PEABODY, MASS.

Report of Committee of Investigation.

The Committee appointed at the Annual Town Meeting, March 22, 1897, to examine all the books and accounts, and to investigate the workings of all departments of Town Affairs, have given considerable time and attention to the duty assigned them, and report thereon as follows :

GENERAL RECOMMENDATION.

Your committee believe that it will be for the interest of the Town that a Purchasing Board be established, consisting of the Chairmen of the different Departments of the Town, which should be authorized to purchase all supplies for the Town. By this method a considerable saving to the Town must result. Take the item of Coal. There was purchased for the year ending Jan. 15, 1898, Coal for the different Departments, as follows :

Electric Lighting,	\$3,440 51
Highways,	131 40
Water Dept.,	1,538 08
Fire Dept.,	171 77
Poor Dept.,	790 18
School Dept.,	1,644 25
Town House,	317 84
	<hr/>
	\$8,034 03

Your Committee believe this large amount of coal should be contracted for by the Purchasing Board, under competition, and that the Town should secure a suitable landing place, centrally

located, from whence the coal may be distributed to the different departments by the Town teams, thus obviating the necessity of so much exercise of the Town horses in order to keep them in good condition.

And a similar system may be followed with all the other supplies used by the Town.

TOWN CLERK AND TREASURER.

The Committee have nothing but commendation to express in regard to the work of the Town Clerk and Treasurer. All of his numerous duties appear to be performed admirably, and his books and accounts are models of neatness and systematic arrangement.

BOARD OF SELECTMEN.

Your Committee also commend the methods and system of the Board of Selectmen. If anything, they do too much, as some of the work now put upon them properly belongs to other Departments, as appears in this report. All the details (and they are many) of the town business appear to have been attended to by the present Board of Selectmen with care, fidelity and judgment.

BOARD OF HEALTH.

Extraordinary and arbitrary powers are conferred upon this Board by the Statutes, and necessarily so, since in times of epidemics or other menaces to the public health, the Board must have power to act without possibility of opposition or interference. But such power, like military and other arbitrary rule, is irksome in a Republic, and the important but disagreeable duties of this Board must be discharged with great tact and judgment, and the members of the Board should be ready to courteously explain at proper times the reasons for their actions.

On the other hand, citizens should use forbearance and courtesy at times when it may appear to them that their private

rights are being unnecessarily encroached upon, as the action of the Board may be of importance much greater than is apparent, and the duties of the office are, at best, sufficiently disagreeable.

SCHOOL DEPARTMENT.

The Committee make no suggestions in regard to the courses of study in our schools, as they consider them outside the scope of their duties. In regard to business management, they learn that the Department keeps no books beyond the secretary's minutes of the meetings, and they advise the keeping of such a set of books as will easily show the exact financial standing of the Department, without recourse to the books of the Selectmen or of other departments. They renew their recommendation of the purchase of all supplies by the Board herein named, and they believe that inasmuch as the expenses of this Department are always necessarily large, any proposition to increase them should receive careful scrutiny.

WATER DEPARTMENT.

Your Committee made some investigation of this Department, and found that it will be soon necessary for the Town to make appropriations for a new engine to take the place of the spare engine that is unfit for the service that would be required of it in case of any accident to the regular engine, also for additional storage facilities, the present reservoir being able to furnish only a few hours' supply in case of a large fire.

But in consideration of the facts that the purchase of a new engine would necessitate an addition to the present engine house; that a point nearer our water supply would probably be a better place for a reservoir and perhaps for the entire plant, than their present locations, and finally that this whole matter is now in the hands of a sub-Committee specially appointed for the purpose, your Committee refrain from making any recommendations in regard to these matters.

They do recommend that all the purchases of this Department be made by a Board, as before stated in this report, and that the

accounts of the Water Board be kept in such a way as to accurately indicate the real profit or loss in the operation of the Department. Extensions of pipe are often asked for, and an unwise reduction in the price of family service was voted on the ground that the Department showed a large yearly balance to its credit, when the fact was that it was running at a loss, which would have appeared had the accounts been properly kept. This fact is adverted to in the report of the Water Board for 1897, and the error should be corrected in future reports, and the total expense of the Department be shown in its own accounts.

The Committee also recommend that the Clerk of this Department furnish bonds, to be paid for by the Town, and that he report and pay over balances to the Town Treasurer, daily.

ASSESSMENT AND COLLECTION OF TAXES.

Your Committee are unanimously of the opinion that there should be a decided change in the methods of collecting and abating the taxes of the Town.

On the 12th day of February, 1898, there was a deficiency of \$44,864.20 in the taxes which had been levied since 1891, as follows:

1892,	\$ 359 08
1893,	1,304 82
1894,	2,128 13
1895,	5,833 31
1896,	12,785 66
1897,	<u>22,453 20</u>
Total,	\$44,864 20

Of this sum, about \$3,000 represents poll taxes, abated or uncollected.

Your Committee do not believe that it is necessary that so large an arrears of taxes should be outstanding at any one time. They do not think such a practice just or equitable to the prompt tax payers. The Collector has the laws behind him. The taxes constitute a lien on all real estate for two years after they are committed to the collector, and after that time, if the property

has not been sold previous to the Collector's notice of sale. Taxes upon personal property can be collected by suit or distress, and the penalty for not paying a poll tax is imprisonment. These are the means at the Collector's disposal, for the collection of taxes, and your Committee believe that they should be used whenever necessary, and that the Collector is not doing his duty, if he does not use these means before allowing such a large per cent of arrears as shown above.

Doubtless some of the abatement also, that the Assessors annually make of the taxes in arrears, amounting to about \$2,500 each year, on an average, might be saved to the Town by such action on the part of the Collector.

The Committee believe that the prompt use, by the Collector, of the powers vested in him by the Statutes, in the case of a very few of these delinquents, would result in the immediate payment of a large part of these arrears, and in the prevention of a similar state of affairs in the future.

The committee are of the opinion that the present Collector is very systematic and careful in his accounts and that he is a courteous and worthy gentleman, but they also believe that he has not done his whole official duty, and they learn with pleasure, that he is about making the decided change that is so necessary in his department.

The receipts in this Department also should be turned over to the Town Treasurer without delay, in order to save interest.

POOR DEPARTMENT.

In regard to the Poor Department, the Committee respectfully recommend that there be an immediate change in the out-door management, and that a thoroughly competent and suitable man be placed in charge, with instructions from the Overseers to discontinue the raising of swine or cattle in any greater number than is necessary to supply the pork, beef or milk used in the establishment.

We cannot think that the Town can afford to carry on a business in which it is impossible, in the present state of the market, for a private individual to avoid a loss.

Your Committee also recommend that extreme care be taken by the officers of this Department in the matter of out-door relief. There is good reason to believe that the generous charity of the Town has been abused by some of those receiving aid from it. How to guard against such imposition and not withhold necessary aid from the innocent and worthy, is a difficult problem, to which the Overseers should give close study.

The item of board at the hospitals reached the sum of \$4,483.-55 last year. This would seem an enormous expenditure, but your Committee see no way of lessening it under existing conditions.

The Committee find that the indoor management of the Alms house has been of the best, and that the town property is generally in good condition.

ELECTRIC PLANT.

In approaching the subject of the Electric Plant of the Town, your Committee felt that the large sum of money which the Town has invested in the Plant, the lack of accurate information in regard to its inception, and the scientific and technical knowledge requisite to fully investigate this Department, would require the assistance of an expert, to be in any degree satisfactory to the citizens.

They therefore secured the services of Mr. J. Frank Perry, a gentleman who has had some seventeen years' experience in almost every branch of practical electrical work, including the expert examination of town plants. His report is as follows:

BRAINTREE, Jan. 31, 1898.

TO THE COMMITTEE ON ELECTRIC LIGHTING,

Town of Peabody, Mass.

Gentlemen :—

I have carefully investigated into the condition of your municipal lighting plant, and respectfully submit the following report:

I have endeavored during my examination of the whole plant, to view the subject from a practical station manager's standpoint.

At the station I examined the Engines, Boilers, Shafting and Electrical Machinery, and had cards taken from the engine under varying conditions, to determine the power taken to operate the street lighting system, as well as the commercial incandescent system, and the result is as follows :

Card No. 1, Slater Engine, and main belt and pulley only	28.8 H. P.
Card No. 2, Slater Engine, all shafting and Arc Dynamos, only	43. H. P.
Card No. 3, Slater Engine, all shafting and day load incandescent, only	67.5 H. P.
Card No. 4, Slater Engine, all shafting, Arc load only	144. H. P.
Card No. 5, Slater Engine, all shafting Arc and Incandescent load	276. H. P.

A card taken from your Greene engine shows the engine to be in good working condition.

With Arc and Incandescent lights all on at 5.30 P. M., which at this time of year is about your heaviest load, the engine is working nearly up to its rated capacity, and would probably not be able to develop more than 30 or 40 H. P. additional, with any degree of economy.

The result of engine tests demonstrates that the Arc lamps are taking more power to operate than the ordinary 6.7 Ampere Arc lamp, running at 50 volts. I find, on testing the Arc lamps while burning, that they are running at about 70 volts, which gives more light, but probably accounts for the increased power consumption. I doubt very much the wisdom of running the lamps at such a high voltage.

Comparing the station Ampere meter readings with the card taken from engine, and allowing for friction of shafting and belts, shows that the power consumption for operating the Commercial lighting system is correct, but the Ampere reading for day load is much greater than it should be, when the actual number of lamps burning is taken into consideration. I visited almost all of the places where day lamps were supposed to be burning, and I only found 38 lamps burning at 9.30 A. M. The reading at the station was 14 Amperes, equal to 280 lamps. The large difference between what was actually burning and what the station indicator showed, is due to the fact that a considerable amount of current is lost in transmission, part of which loss is in the wires, but the greater portion is transformer loss, a part of which loss can be remedied, as I propose to show later.

The steam plant, with a few exceptions, is in good working condition. There being no way by which the water consumption of your boilers can be got at, prevented me from knowing just what the efficiency of your steam plant is. A water meter

should be placed at the station, and a daily record kept of water used, which would serve as a check on your boilers, and if the water consumption did not compare favorably with the pounds of coal used, you would know it, and be able to remedy the fault, as it is well known that a pound of coal should evaporate a certain number of pounds of water.

The Heater used is too small and does not heat the feed water as it should, when the heaviest load is on engines, consequently your coal consumption is greatly increased over what it would be with a heater of sufficient size to raise the water to a temperature of 200 degrees, before entering the boiler. At present the water enters the boiler at anywhere from 130 to 180, according to the load.

The engine cards show considerable back pressure, part of which, no doubt, is due to the small heater.

It would be a good idea to have a set of platform scales at the station, large enough to weigh a whole team load of coal at once; thus being assured that you received all the coal you paid for.

I examined the Commercial lighting machines, and also the Street Lighting Dynamos, as to their efficiency and condition.

The Arc Dynamos are in good running order, and did not show signs of being overloaded, although the increased voltage at which your lamps are now above normal conditions, undoubtedly lessen the number of lamps which could be run from the dynamos, if the voltage was kept at 50 volts per lamp.

One of the Arc machines needs some small repairs, which should be attended to if the machine is to be used.

Two large Arc Dynamos of modern design would furnish current for all the street lamps you use, and you would save the wear and tear on two machines by making the change; as large machines are more efficient than your small ones, you would make additional saving.

The Incandescent plant, consisting of two 1,000 light dynamos, are both used every night, as the load is too great for one dynamo. It would be good economy for the town to swap off one of the machines, and get one of at least twice its capacity, and then you would not be obliged to run two machines, as you do at present. Something of this sort will have to be done soon, as you have nearly reached the capacity of the present machines.

The Incandescent machines are in good working order.

The voltage maintained on the Incandescent dynamos is too high and is kept at a higher pressure than the dynamos are built to stand, which increases the liability of an accident to the machine. There is no way at the station by which an accurate

idea of the cost of your incandescent lighting can be got at, the Amphere meter only giving a rough idea of the current output. About all the plants nowadays have recording Watt meters installed in the station, that record all of the output of the dynamo, and by comparing the station readings with the amount of light that your consumers pay you for, you can get accurate information at any time as to the cost of your commercial lighting. The expense of installing two Watt meters at your station would be small, and the benefit derived would be unquestioned.

In connection with methods for finding out cost of operating your plant, I would recommend that your engineer take one or more cards from his engines every day, and submit such cards as part of his daily report to the manager.

The question of profit to the Town, in conducting the Commercial lighting system, is a most important one. From an examination of your accounts, I find that you are running your day load at a large loss to the Town, which the profits from your night load does not overcome.

The rate charged (3-4 of a cent per lamp hour), is about what it should be, but I find that you have a system whereby a customer, consuming \$30 worth of current per quarter, gets a discount of 33 1-3 per cent, while a customer who uses less than that amount, gets but 5 per cent discount. This is not right, as it has been proved many times in this State, that under the very best conditions, with plants the size of your Town's plant, using steam as a motive power, it costs very nearly 1-2 cent per 16 candle power lamp to produce the light.

A meter rent of not less than 10 cents per month should be charged everywhere meters are used, and a minimum rate of \$10 per year charged.

Under the transformer system of furnishing current there is a constant loss in transformers, which goes on all the time, and if you install lamps in places that use less than \$10 worth of current per year, the line and transformer loss will amount to more than you receive for the light.

If the town proposes to continue furnishing current throughout the day, I think that a separate circuit should be run from the station, as under the present condition of affairs the current from the station is passing through all the transformers installed, which undoubtedly adds to the cost of operation.

From an examination of your commercial transformers and lines, I am of the opinion that a number of your small transformers could be taken out, and a few large transformers substituted, thus saving loss, as the large transformers have a much higher efficiency than the small ones.

The lines, both Arc and Alternation, are in very good condition. A small amount of work in the spring will put them in good shape.

There are several places where tree insulators should be placed on the lines, or else trim out the trees, which should be done at this season of the year, as it is much easier to find such "grounds" now while there are no leaves on the trees.

An examination of the Arc lamps shows that the double carbon T. H. lamps are in need of repairs, and your manager informs me he is taking them out and repairing them as fast as possible.

The Upton Enclosed Arc lamps are working well, and are as efficient as your double lamps, and I have no doubt but that if all of your lamps were of that style you could save the cost of one of your trimmer's wages.

A test of one of the Upton Enclosed lamps, using 70 volts at 6.7 amperes, and testing with an indicating kilo Watt meter, showed that the lamp was taking 360 Watts.

A test of a T. H. double lamp, consuming 6.7 amperes at 75 volts, showed that the lamp was taking 390 Watts, and the candle power of both lamps, as far as I could tell without a photometric test, was practically the same.

I would recommend that the Town erect a suitable building on the station lot, that could be used as a stable, store house and work shop. I understand the town pays \$25 per month for the use of a stable and store room, and horse and team, which you have the use of for only a portion of the time.

In conclusion I wish to say that during my search for information, I have had all possible assistance from Manager Hutchinson, and Engineer Enos.

Very truly yours,

J. FRANK PERRY.

In addition the Committee would say that Mr. Perry thought very little of the Slater engine; that he found the electric property generally in good condition; and the present manager attentive to his duties and the interests of the Town, and one who, with increased experience and the additional executive ability that naturally comes with it, may prove a good man for the place.

HIGHWAYS.

Your Committee believe that the management of the highway system of Peabody will compare favorably with that of any other town or city in the Commonwealth.

During the last season, Mr. W. E. McClintock, a member of the State Highway Commission, gave an address before the Board of Trade in Town, descriptive of the methods of making and maintaining highways. The principles of good road making, as laid down by him, were almost identical with those used by our Superintendent of Streets.

As we have good material, and an efficient superintendence, our roads are generally in such condition as to attract the notice and favorable comment of strangers as well as citizens.

FIRE DEPARTMENT.

It is generally conceded that Peabody has been more liberal in its provisions for a Fire Department than almost any other town of its size. Its expenditures have been profuse, and the Department is now so complete that it would seem as if there need be no further appropriation of any large sum by the Town for some time to come.

In view of these facts, and the additional one that no amount of expenditure by the Town avails to secure any reduction of the insurance rates, the Committee believe that with the possible exception of a striker for the South Peabody Engine House, no further outlay should be made in this Department at present.

PARK COMMISSIONERS.

The whole amount appropriated for the establishment of the Franklin Hill Park, to Dec. 1, 1897, is \$20,413.63. As follows:

By legacy of Augusta Proctor,	\$10,000 00
Interest on the same,	413 63
Vote of Town,	10,000 00
	<hr/>
	\$20,413 63

Of this amount \$14,335.37 has been expended to date, leaving an unexpended balance of \$6,078.26.

Of the \$14,335.37 thus far expended, \$9,723.84 was paid to the Chairman of the Park Commissioners.

Your Committee are unanimously and emphatically of opinion that no member of a commission or committee charged with the expenditure of money of a town, has any moral right to make contracts with such commission or committee and thus become his own paymaster. As to the legal right, if the provisions of Section 12 of Chapter 205 had been made to relate to towns, as it does to cities (and there is no reason why it should not), this act would be punishable by a severe penalty. In the judgment of your Committee, the Board of Park Commissioners have been unfaithful to their trust in this respect, and the possibility of such an action in future should be prevented by a by-law of the Town, if it is not speedily met by a statute.

In the details of this large expenditure, the Committee find that the labor and teams for the work were all furnished by Mr. Quint, except to the amount of \$207.97, which was paid to Mr. James C. Linehan. It is a fact suggestive of what further competition might have saved the Town, that had Mr. Quint charged no higher rates than Mr. Linehan, the Town would have been the gainer by some four or five hundred dollars.

Your Committee also find, that apparently the only authority for the number of men and teams furnished daily, was that of Mr. Quint's son. None of the laborers signed receipts for the money received by them, as is customary, and the Committee are of the opinion that the work as a whole was not done economically or superintended properly.

In the completion of the work of this Commission, and of all other similar Commissions, the obvious business requirements should be rigidly enforced.

All such undertakings should be under contract, if possible. And if, for a special reason, day labor is employed by the Town, a time-roll should always be kept, and signed by each employe, and competent and constant supervision be provided for.

From the result of the labors of your Committee in this department alone, it is evident that there was need of just such an enquiry as the Town had in view in appointing this Committee.

CONCLUSION.

In conclusion, the Committee of Investigation gladly close their unpleasant and perhaps thankless labors. They have each and all given a great deal of valuable time, solely that the public service should be improved and their fellow citizens benefited thereby.

Such an endeavor must always meet with opposition and often with ill feeling. In this instance it has been made without fear or favor, "naught to extenuate," but on the other hand, "naught to set down in malice," and with entire freedom from bias or prejudice. The facts presented were all taken from the Town Records, or from statements made by the heads of the different Departments, and each department has been afforded an opportunity to explain its workings. Your Committee have tried to make this a fair, just and honest report of the present condition of the affairs of the Town of Peabody, and as such they respectfully submit it to the citizens of the Town.

FRANK E. FARNHAM,
J. S. CREMORE,
THOMAS H. O'SHEA,
ALEX. B. CLARK,
A. E. WELLS.

Peabody, Feb. 16, 1898.

